

What is claimed is:

1 1. A method of reproducing data from a disc in a disc-reproducing system,
2 the method comprising:

3 (a) positioning a pick-up at a predetermined position on the disc and counting a
4 number of track traverse pulses which are generated when a tracking is switched to
5 "OFF" at a lowest speed factor;

6 (b) positioning the pick-up at a predetermined position on the disc and counting a
7 number of track traverse pulses which are generated when a tracking is switched to
8 "OFF" at a highest speed factor;

9 (c) obtaining a frequency of vibration of the disc by subtracting the number of
10 track traverse pulses at the lowest speed factor from the number of track traverse
11 pulses at the highest speed factor; and

12 (d) varying a speed factor of reproducing data from the disc, by comparing the
13 frequency of vibration with a predetermined base value.

1 2. The method of reproducing data from a disc in a disc-reproducing system
2 of claim 1, wherein one of the steps (a) and (b) further comprises checking an
3 innermost circumference of the disc after tracking is switched to "OFF", and at a
4 predetermined time after checking the innermost circumference of the disc, counting
5 the number of track traverse pulses when the counting is switched to "OFF" at a
6 corresponding speed factor.

1 3. A method of reproducing data from a disc in a disc-reproducing system,
2 the method comprising:

3 (a) positioning a pick-up at a predetermined position on the disc and counting a
4 number of track traverse pulses which are generated when a tracking loop is switched
5 to "OFF" at an arbitrary speed factor; and

6 (b) varying a speed factor of reproducing data from the disc, by comparing the
7 number of track traverse pulses with a predetermined base value.

1 4. An apparatus for reproducing data from a disc inducing vibration, the
2 apparatus comprising:

3 a pick-up unit detecting a tracking traverse signal by revolving the disc in a
4 tracking "OFF" state;

5 a signal amplifying unit differentially-amplifying the tracking traverse signal
6 detected by the pick-up unit;

7 a signal comparator generating a tracking traverse pulse signal comprised of at
8 least one tracking traverse pulse after comparing the tracking traverse signal amplified
9 in the signal amplifying unit with a base signal; and

10 a control unit counting the number of tracking traverse pulses generated by the
11 signal comparator at a lowest speed factor of the disc and also at a highest speed
12 factor of the disc, obtaining the difference between the two counted numbers, and then
13 determining a frequency of vibration of the disc based upon the difference, and varying
14 a speed factor of the disc as a function of the frequency of vibration.

5. The apparatus for reproducing data from a disc inducing vibration of claim
2 4, wherein the control unit counts the number of track traverse pulses at a
3 predetermined time after checking an innermost circumference of the disc when
4 tracking is switched to "OFF".

1 ~~6. A method of reproducing data from a revolving disc in a disc-reproducing~~
2 ~~system, comprising:~~

3 ~~counting a number of track traverse pulses at a first revolving speed;~~

4 ~~counting a number of track traverse pulses at a second revolving speed;~~

5 determining a frequency of vibration of the disc by comparing the number of
6 track traverse pulses counted at the first revolving speed with the number of track
7 traverse pulses counted at the second revolving speed.

1 7 The method of reproducing data from a disc in a disc-reproducing system
2 of claim 6, further comprising:
3 comparing the determined frequency of vibration of the disc with a
4 predetermined base value; and
5 revolving the disc at a reproducing speed based upon the comparison of the
6 determined frequency of vibration with the predetermined base value.

1 8. The method of reproducing data from a disc in a disc-reproducing system
2 of claim 7, wherein the first revolving speed is slower than the second revolving speed.

3 9. The method of reproducing data from a disc in a disc-reproducing system
4 of claim 8, wherein the second revolving speed is approximately 24 times the first
5 revolving speed.

6 10. The method of reproducing data from a disc in a disc-reproducing system
7 of claim 9, wherein the reproducing speed is decreased with increased frequency of
8 vibration.

9 11. The method of reproducing data from a disc in a disc-reproducing system
10 of claim 10, wherein the reproducing speed is approximately 16 times the first revolving
11 speed when the frequency of vibration is determined to be greater than or equal to
12 80Hz, the reproducing speed is 20 times the first revolving speed when the frequency of
13 vibration is determined to be greater than or equal to 40Hz and less than 80Hz, and the

6 reproducing speed is 24 times the first revolving speed when the frequency of vibration
7 is determined to be less than 40Hz.

12. The method of reducing data from a disc in a disc-reproducing system of
claim 11, wherein the disc further comprises an inner circumference and the disc-
reproducing system includes tracking comprising "OFF" and "ON" states, further
comprising:

switching tracking in the disc-reproducing system to the "OFF" state; and
checking the innermost circumference of the disc.

13. The method of reproducing data from a disc in a disc-reproducing system
of claim 12, wherein the counting of track traverse pulses at the first revolving speed
and the second revolving speed comprises counting the track traverse pulses at a
predetermined time after checking the innermost circumference of the disc.

14. The method of reproducing data from a disc in a disc-reproducing system
of claim 13, wherein the predetermined time after checking the innermost
circumference of the disc is approximately equal to a time for the disc to complete two
revolutions.

15. The method of reproducing data from a disc in a disc-reproducing system
of claim 13, wherein the predetermined time after checking the innermost
circumference of the disc is approximately 100ms.

16. An apparatus for reproducing data from a disc inducing vibration, the
apparatus comprising:
a pick-up unit detecting a tracking traverse signal;

4 a signal comparator comparing the tracking traverse signal with a base signal
5 and then generating a tracking traverse pulse signal comprised of at least one tracking
6 traverse pulse; and
7 a control unit counting the number of track traverse pulses generated in the
8 signal comparator.

1 17. The apparatus for reproducing data from a disc inducing vibration of claim
2 16, wherein the control unit counts the number of track traverse pulses generated in the
3 signal comparator at a first revolving speed of the disc and also at a second revolving
4 speed of the disc, determines a frequency of vibration of the disc based upon the track
5 traverse pulse counts, and changes a speed of the disc based upon the frequency of
6 vibration of the disc.

1 18. The apparatus for reproducing data from a disc inducing vibration of claim
2 17, wherein the pick-up unit further comprises a tracking "OFF" state and a tracking
3 "ON" state, and the pick-up unit detects a tracking traverse signal by revolving the disc
4 in the tracking "OFF" state.

1 19. The apparatus for reproducing data from a disc inducing vibration of claim
2 18, further comprising a signal amplifying unit to differentially amplify the tracking
3 traverse signal detected in the pick-up unit prior to sending the signal to the signal
4 comparator.

1 20. The apparatus for reproducing data from a disc inducing vibration of claim
2 19, wherein the control unit counts the number of track traverse pulses at a
3 predetermined time.

1 21. The apparatus for reproducing data from a disc inducing vibration of claim
2 20, wherein the predetermined time for counting the number of track traverse pulses is
3 approximately 100ms after checking an innermost circumference of the disc.

21. The apparatus for reproducing data from a disc inducing vibration of claim 20, wherein the predetermined time for counting the number of track traverse pulses is approximately 100ms after checking an innermost circumference of the disc.